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	Soggetti	Computers Algorithms Computer science—Mathematics Calculus of variations Combinatorial analysis Mathematical statistics Theory of Computation Algorithm Analysis and Problem Complexity Discrete Mathematics in Computer Science Calculus of Variations and Optimal Control; Optimization Combinatorics Probability and Statistics in Computer Science
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	Nota di contenuto	Polynomial time approximation schemes for some dense instances of NP-hard optimization problems -- Average-case complexity of shortest-paths problems in the vertex-potential model -- Approximation algorithms for covering polygons with squares and similar problems -- Greedily approximating the r-independent set and k-center problems on random instances -- Nearly linear time approximation schemes for Euclidean TSP and other geometric problems -- Random sampling of Euler tours -- A combinatorial consistency lemma with application to proving the PCP theorem --

Super-bits, demi-bits, and NP/qpoly-natural proofs -- Sample spaces with small bias on neighborhoods and error-correcting communication protocols -- Approximation on the web: A compendium of NP optimization problems -- Random-based scheduling new approximations and LP lower bounds -- 'Go with the winners' generators with applications to molecular modeling -- Probabilistic approximation of some NP optimization problems by finite-state machines -- Using hard problems to derandomize algorithms: An incomplete survey -- Weak and strong recognition by 2-way randomized automata -- Tally languages accepted by Monte Carlo pushdown automata -- Resource-bounded randomness and compressibility with respect to nonuniform measures -- Randomness, stochasticity and approximations.

| Sommario/riassunto | This book constitutes the refereed proceedings of the International Workshop on Randomization and Approximation Techniques in Computer Science, RANDOM'97, held as a satelite meeting of ICALP'97, in Bologna, Italy, in July 1997. The volume presents 14 thoroughly revised full papers selected from 37 submissions; also included are four invited contributions by leading researchers. The book focuses on algorithms and complexity aspects arising in the development of efficient randomized solutions to computationally difficult problems. The papers are organized in sections on approximation, randomness, algorithms, and complexity. |